

Application Number 10/817,610
Responsive to the Final Office Action mailed April 24, 2006

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An apparatus comprising:

a flow meter which determines a flow rate of a flow of pressurized fluid, wherein the flow meter is located in a flow path of the flow of the pressurized fluid;

a conduit which receives the pressurized fluid and conducts a first portion thereof to a device under test (DUT); and

a bleed orifice which removes a second portion of the pressurized fluid from the conduit at a selected removal rate, wherein the apparatus determines a leak rate for the DUT in relation to the determined flow rate and the selected removal rate.

Claim 2 (Original): The apparatus of claim 1, further comprising a regulator upstream of the flow meter which regulates the pressure of the pressurized fluid.

Claim 3 (Original): The apparatus of claim 2, wherein the regulator utilizes a variable orifice size to reduce flow oscillations in the pressurized fluid.

Claim 4 (Original): The apparatus of claim 1, further comprising an accumulator upstream of the flow meter, the accumulator comprising a chamber which accumulates a volume of the pressurized fluid.

Claim 5 (Original): The apparatus of claim 1, further comprising a valve coupled to the conduit and configured to respectively prevent and permit flow of the pressurized fluid to the DUT.

Application Number 10/817,610

Responsive to the Final Office Action mailed April 24, 2006

Claim 6 (Original): The apparatus of claim 5, wherein the valve is placed at a distal end of the conduit proximate the DUT.

Claim 7 (Original): The apparatus of claim 5, wherein the selected removal rate for the bleed orifice is determined in relation to a flow rate measured by the flow meter while the valve is configured to prevent flow of the pressurized fluid to the DUT.

Claim 8 (Original): The apparatus of claim 1, wherein the flow meter is configured to determine flow rates over a selected range from a first lower value to a second higher value, wherein a specified leak rate of the DUT is at a level proximate the first lower value, and wherein the selected removal rate of the bleed orifice causes the determined flow rate of the flow meter to be a mid-range value between the first lower value and the second higher value.

Claim 9 (Original): The apparatus of claim 1, wherein the flow meter is characterized as a first flow meter, wherein the apparatus further comprises a second flow meter coupled to the conduit in parallel to the first flow meter, and wherein the apparatus further determines a leak rate for the DUT in relation to a determined flow rate from the second flow meter and the selected removal rate.

Claim 10 (Previously Presented): The apparatus of claim 1, further comprising a controller, wherein the controller determines the leak rate for the DUT and compares the determined leak rate for the DUT to a specified acceptable leak rate.

Claim 11 (Original): The apparatus of claim 10, wherein the specified acceptable leak rate corresponds to a value equal to or less than 0.5 standard cubic centimeters (sccm) at 1.0 inches of water (inH₂O).

Claim 12 (Original): The apparatus of claim 1, wherein the pressurized fluid comprises air.

Claim 13 (Canceled).

Application Number 10/817,610
Responsive to the Final Office Action mailed April 24, 2006

Claim 14 (Currently Amended): A method, comprising:

measuring a flow rate of a flow of pressurized fluid with a flow meter located in a flow path of the flow of the pressurized fluid while providing a first portion of the pressurized fluid to a device under test (DUT) and diverting a second portion of the pressurized fluid away from the DUT at a selected removal rate; and

determining a leak rate for the DUT in relation to the measured flow rate and the selected removal rate.

Claim 15 (Original): The method of claim 14, comprising a prior step of measuring the selected removal rate by determining the flow rate of the pressurized fluid while preventing said first portion from reaching the DUT.

Claim 16 (Previously Presented): The method of claim 14, further comprising using a bleed orifice to divert the second portion of the pressurized fluid away from the DUT at the selected removal rate.

Claim 17 (Previously Presented): The method of claim 16, wherein the flow meter is configured to determine flow rates over a selected range from a first lower value to a second higher value, wherein a specified leak rate of the DUT is at a level proximate the first lower value, and wherein the selected removal rate of the bleed orifice causes the measured flow rate of the flow meter to be a mid-range value between the first lower value and the second higher value.

Claim 18 (Original): The method of claim 14, further comprising comparing the determined leak rate for the DUT to a specified acceptable leak rate.

Claim 19 (Original): The method of claim 18, wherein the specified acceptable leak rate of the comparing step corresponds to a value equal to or less than 0.5 standard cubic centimeters (sccm) at 1.0 inches of water (inH₂O).

Application Number 10/817,610
Responsive to the Final Office Action mailed April 24, 2006

Claim 20 (Original): The method of claim 14, further comprising establishing the flow of pressurized fluid using a regulator.

Claim 21 (Previously Presented): The method of claim 20, wherein the regulator of the establishing step utilizes a variable orifice size to reduce flow oscillations in the pressurized fluid.

Claim 22 (Original): The method of claim 14, wherein the pressurized fluid comprises air.

Claim 23 (Original): The method of claim 14, wherein the DUT comprises a data storage device housing.

Claim 24 (Canceled).

Claim 25 (New): An apparatus comprising:

- a flow meter which determines a flow rate of a flow of pressurized fluid;
- a conduit which receives the pressurized fluid and conducts a first portion thereof to a data storage device housing; and
- a bleed orifice which removes a second portion of the pressurized fluid from the conduit at a selected removal rate, wherein the apparatus determines a leak rate for the data storage device housing in relation to the determined flow rate and the selected removal rate.

Claim 26 (New): The apparatus of claim 25, wherein the flow meter is located in a flow path of the flow of the pressurized fluid.